

PUTTING SKILL STANDARDS IN DRIVE

Eager to meet the needs of employers and serve high school students, Indiana is pushing ahead with its own system of standards and certificates mirroring a trend among states and districts that aren't waiting for the national effort to bear fruit.

The guy said he was a tool and die maker, and he had a large box of tools to prove it. But about two days after he began work at Apex Tool and Manufacturing in Evansville, Indiana, it became clear to Apex President Terry Babb that his new employee talked the talk better than he walked the walk. On the shop floor, he really couldn't cut it.

The problem, Babb says, is that job applicants "can tell us they have certain skills," but that's no guarantee they can perform them.

To many employers-and vocational-technical educators-the solution might be skill certificates that accurately document what works or students know and can do. As policymakers, business leaders and educators grapple with a way to build a national system of voluntary skill standards and certificates (see page 33, several states' education systems have been moving ahead with their own plans to set standards-and tie them to the vocational curriculum.

Indiana began awarding such certificates two years ago to secondary and postsecondary vocational-technical education students who prove their abilities through performance tied to standards. The state's Essential Skills and Technical Proficiencies Initiative is considered a leader among skill standards efforts in the United States, and participants say its positive results range from improved self-confidence in students to better rapport between education and industry.

Employers like Babb, who served on a technical committee that helped develop the standards, say the certificates make job applicants' claims "more credible." Industries in Indiana "have been crying out for some kind of documentation," adds Terry Fields, the state director of vocational and technical education.

Melodie Busch, a business teacher at the Southeastern Career Center in Versailles, says she has seen a remarkable improvement in her students' sense of self-worth. Vocational students, who for whatever reason do not go on to college, have traditionally considered themselves "second rate compared to their college-bound counterparts," Busch wrote in a recent paper, but going through an extensive assessment process to acquire skill certificates has given them a new appreciation of their abilities.

For their part, the students say they enjoy the chance to do genuine workplace tasks. "it's like real work. We call real people," says SCC senior Rebecca Craig, one of Busch's office technology students. She described one recent assignment that involved searching the Internet to find a correct mailing address as "a problem-solving thing, plus I had to work with the equipment in the office. I've learned quite a lot about responsibility [and] working on your own."

Craig is one of about 450 recipients of Indiana's technical achievement certificates, and Fields expects that number to jump to 1,500 by the end of this year. Such an increase is possible because Indiana is tripling the number of authorized "implementation sites" for the technical proficiencies program, according to Soni Jones,

the state's assistant state director for vocational and technical education. Currently, 32 schools and colleges have qualified as implementation sites.

Instructors attend a two-day Workforce Development Department workshop covering such topics as using software and developing the work scenarios through which student's abilities are assessed.

All of Indiana's skills certificates so far have been awarded to secondary and postsecondary students. The initial emphasis has been on secondary students whom Fields estimates have received about 70 percent of the certificates. But that will change soon. The program is being pilot-tested for adults this spring, and Jones anticipates a large market of incumbent workers looking for retraining. In the future, companies might be authorized to train workers to be the standards and is skill certificates.

As the program expands, Fields wants to make sure it continues to be of high caliber: "We're rolling it out slow, because we want quality at all levels."

Industry Validated

The genesis of the program dates back to 1992, when the Indiana legislature passed a workforce development act that created a Workforce Proficiency Panel made up of representatives of business, labor and education. Appointed by the governor, panel members were charged with determining which occupational areas in Indiana have high demand and low supply, as well as high wages for skilled workers and solid opportunities for advancement. Ultimately members identified seven occupational fields-bioscience, business support, electronic, health, metalworking, plastics and printing-and worked with more than 100 companies and their employees throughout the state to establish the essential skills and technical proficiencies required for each area.

Fields explains that when the initiative began, there were not many models to follow. The industry groups sponsored by the departments of Labor and Education had barely begun to develop their national skill standards. "we checked around, [but] there wasn't a model to work from," Fields says. "we decided early on that whatever we did needed to be led by business and industry."

But the panel didn't stop there. Going a step further, it recommended ways to bring vocational-technical curricula up to the proficiency-based standards, evaluate students against those standards and award them industry-recognized certificates if they made the cut.

Essentially, Fields explained, business representatives were asked, "If you're going to hire somebody, say in plastics, what do you need them to be able to do?"

The panel adopted SCANS (the Secretary's Commission on Achieving Necessary Skills) competencies as the framework for its technical proficiencies. (In Indiana, the terms "proficiencies" and "skill standards" are interchangeable.)

SCANS requires competency in four general areas-resources, information, interpersonal systems and technology-which provide a framework for the more specific skills a student must demonstrate for a certificate. The back of the certificate lists technical proficiencies organized according to the SCANS criteria.

The next step was to tie instruction to the standards, which include lists of knowledge and skills required for the particular occupational fields. Teachers also receive software to help them develop the work-based scenarios for students to perform.

Interestingly, Fields says local schools at first did not want to be issued “statewide scenarios” for particular occupations. Now, after seeing the amount of work involved in developing the scenarios, some teachers are wondering, “Why can’t the state do this?”

“There is some extra work there, particularly in the development of the scenarios,” Fields says. Teachers also must consult with a local advisory committee of business and industry officials to ensure their programs teach needed skills.

The program is entirely voluntary; a teacher could evaluate all or none of her students. “we’re not trying to mandate this, but we point out the advantages of having certificates,” Fields says.

Indiana did not issue new curriculum guidelines as a result of the Essential Skills and Technical Proficiencies Initiative, though Fields believes the standards “should be the curriculum” since they provide a “roadmap” for what students should know and be able to do.

Showing What They Know

Successful students receive something more than a certificate to frame and hang on the wall. The State of Indiana Certificate of Technical Achievement, which is signed by the governor and includes the aforementioned extensive list of technical proficiencies, comes in a three-ring “certification notebook.” The notebook includes a form letter, signed by the certificate holder, that tells prospective employers or postsecondary admissions counselors that the book “has been assembled to show you what I know and can do.” And it has a detailed description and evaluation of the “assessment scenario” or simulated work activity the applicant had to complete to earn the certification. Some teachers conduct one proficiency assessment at the end of the semester. Others, like Busch, have students do multiple scenarios throughout the semester.

The certification notebook is an “open transcript” that can be supplemented as the holder acquires new skills and knowledge. It can follow the student from high school into technical college, occupational education and a career, and it may serve as a cornerstone of a portfolio to show prospective employers. The certificate does not specify where or how the holder acquired the particular knowledge or skill, only that he has demonstrated it.

“The important thing is they’re demonstrating the application of a skill,” not simply taking a multiple-choice test, Fields says.

Busch explains that Indiana developed the performance evaluation because employers “tend to reject” typical letter grades as unreliable indicators of what a potential employee can actually do. “An A in one business class might be a C in another,” she says. But the scenarios, based on input from incumbent workers, provide a more accurate picture of a student’s ability to perform real workplace tasks.

The emphasis on industry involvement aims to address the common complaint that schools don't teach what business need. Busch says Indiana's initiative has helped her develop a better rapport with local businesses. "They feel for the first time that educators are listening to their plea for better-prepared employees and a better way of determining who is truly capable of succeeding," she says. Teachers have some flexibility to develop scenarios for students, though the scenarios must be based on the proficiencies established by the workforce panel and approved by an advisory committee of business and industry representatives, Jones explains. The committee determines if the scenario is useful, important for the field and representative of real work. Despite the fact the three signatures are needed to approve a scenario, Jones asserts the process moves quickly.

Busch believes the scenarios fit her teaching method, so her students might do 30 of them in a school year. Teachers typically develop five to 10 scenarios per semester, Fields says.

One certification is available for each of the seven occupational fields. When students demonstrate additional skills beyond what was required for the certificate, those skills are noted in the certification notebook. The Department of Workforce Development monitors additions to the certification notebooks via computer.

Generally, each scenario leads to a certificate. Some scenarios involve just one specific proficiency, such as choosing the best way to transmit information. Others test students on multiple proficiencies, such as determining what information is required and where to get it, creating proper document and evaluating the relevance and accuracy of information.

Keeping It Real

Busch, a 20-year teaching veteran who has taught at her high school for nine years, creates scenarios out of real situations. When Busch needed to return a "gyro kite" her son had purchased, she turned the task into a scenario for a student. It involved writing a letter explaining the return consulting a credit card company, packing the kite, weighing it and checking Internet sources to determine if it would be cheaper to mail the package through the postal service.

"These are all real skills you would use in an office," Busch notes. When Busch took the package to the post office, she found the student's cost estimate to be exactly right.

In typical assessment scenario, the individual being assessed receives written instructions that he is to "complete an activity designed to simulate a real work situation." He is told an evaluator (typically a teacher) will furnish all the necessary material and instructions, then observe his performance.

The assessment scenario form goes on to discuss the tasks involved in the scenario. The student is given a job title at a fictitious employer. The directions specify what the student is to do and how long he has to do it. Checklist asks the evaluator whether the student displayed certain skill by performing specific tasks, such as, "Did the student display writing skill by composing appropriate correspondence?" In narrative comments at the end of the form, the evaluator elaborates on the student's performance, perhaps commenting on attitude and demeanor. The student receives a copy of the scenario, a checklist of actions performed and the results of the interview.

A typical scenario presents a competency to be tested. Last fall, for example, Southeastern Career center student Kim Wood, toward a business support certificate, was tested on her knowledge of and ability to use technology. In the scenario, she was an information processing specialist for a fictitious firm, SCC Office Technology Computer. Her assignment was to install software on the office computers, then train and observe a co-worker. The “specific proficiency statements” called for her to install and upgrade computer room hardware and train others with clear, precise instructions, without talking down to them.

An evaluator, in this case Busch, observed Wood, nothing on a checklist whether she read the software instructions to learn the details of installation, displayed problem-solving ability, completed the project without direct supervision, taught the co-worker and served as a resource person when needed. Wood received “yes” check marks for each skill area. In narrative comments at the end of the assessment form, the evaluator noted that Wood installed a virus scan update on the computers, trained the fellow student “worker and used her time efficiently. She passed the assessment and qualified for a certificate.

Once a teacher or outside evaluator signs off on the assessment for, it gets sent to the state office for review. If approved, it is signed by the governor and sent back. The certificates can be presented to students by their instructors or at formal occasions such as state conferences or proficiency panel meetings. If Wood hadn’t gotten all “yeses” on her evaluation, she wouldn’t have gotten Busch’s approval. “I have high standards. I expect it to be right,” Busch says. In her class, like the real world of work, “If the letter has one spelling error, it’s not mailable,” Busch says. Busch acknowledges that many teachers are initially skeptical about the value of Indiana’s assessment process but says her experiences have been positive. “It takes them a little while to get used to this type of teaching,” Busch says, but in time they see the value of it. SCC student Sherry Fisher says she prefers the skills-oriented coursework and workplace scenarios over traditional instruction. “I like it better, because when I go to get a job I can say I’ve actually done this kind of work.”

Jones says teachers report that students are now asking to do scenarios. When they complete one, “They really feel like they have accomplished something, and they have something to show for it.”

Fields believes Indiana’s initiative “fits right in” with efforts to develop national skill standards. For example, Indiana’s first-level standards for metalworking closely resemble those developed by National Institute for Metalworking Skills, Fields says.

Indiana will build on whatever standards are eventually issued by the National Skill Standards Board, which promotes voluntary national skill standards through a variety of partnerships between industry and education. The NSSB is examining the notion of core skills-something Indiana’s initiative does not include but does not oppose, Fields says.

“Modern business and industry is looking for cross-training,” meaning that engineers need to know about process control, Fields explains, pointing out the need for common core skills within an occupational field. “I see whatever the National skill Standards Board does as a positive thing for us.”